



In Delaware, a Site Owner's Cooperation and a Cleanup that Exceeds Expectations



Dredging of contaminated sediments at the Christina River.

DuPont-Newport

In Newport, Delaware, the 120-acre DuPont-Newport site has been home to a full century of industrial activity. This site now houses a facility that produces a paint pigment, two industrial landfills separated by the Christina River, a baseball field, and two wetland areas. After State and company environmental investigations in the late 1970s and early 1980s, the site was associated with contamination issues. Over time, protecting the wetlands and river ecosystems became a high priority for EPA and the State. With cooperation from DuPont, the site has been cleaned up beyond EPA's expectations. The project has effectively restored wetland areas and protected the environment.

DuPont-Newport Site

From 1902 to 1929, the site's manufacturing facility made Lithopone, a barium- and zinc-based paint pigment. The facility was purchased in 1929 by DuPont. In the following several decades, Lithopone production was phased out in favor of other pigments. In the 1970s, DuPont built another chemical plant at the site to make chromium dioxide, a compound commonly used as a coating for audio tapes. Though DuPont sold its pigment manufacturing operations to what is now the Ciba Specialty Chemicals Corporation in 1984, contaminated waste from the production of pigment and many other products had, for decades, been disposed of in the site's two landfills. Neither of these landfills were lined for containment.

Investigations by EPA and the State of Delaware in the 1980s and 1990s revealed high levels of heavy metals in the site's groundwater. Very high levels of heavy metals were also found in the landfills as well as in sediments from the river and the adjacent wetlands. Controlling the decades of built-up contamination at this site became a priority. On February 21, 1990, the site was added to EPA's National Priorities List, ensuring that it would receive federal attention and resources. EPA then prepared a cleanup plan for the area to protect the local ecosystem. The plan carried an estimated cost of nearly \$48 million.

JUST THE FACTS:

- With many decades of industrial pollution and a river and wetlands to protect, cleanup of this site became a very high priority to the State and EPA.
- A cooperative effort emerged among EPA, the DNREC, and DuPont. The resulting cleanup was below estimated costs, ahead of schedule, and more comprehensive than initial requirements.
- Though the estimated cleanup cost was approximately \$48 million, cooperative efforts reduced costs by nearly \$13 million.

By working together, EPA, DuPont, and the State of Delaware completed a cleanup effort that resulted in better benefits for the environment than originally anticipated. Moreover, the project came in below cost and ahead of schedule.

EPA, DuPont, and the State of Delaware Working Together

After EPA issued a cleanup order to DuPont, the company implemented the Agency's cleanup plan, conducting a cleanup that exceeded EPA's expectations. Contaminated soil was removed from the adjacent baseball field in 1995. That same year, DuPont installed a water line to ensure nearby businesses had clean water. A cooperative effort emerged among EPA, the Delaware Department of Natural Resources and Environmental Control (DNREC) and DuPont. This cooperation led to DuPont excavating more contaminated sediments than originally planned, enhancing the river's ecosystem and increasing the wetlands' biodiversity. DNREC provided much technical expertise to the effort regarding wetlands restoration, which was instrumental to the project's success.

The site cleanup is now complete, and it was finished ahead of schedule. More than 57,000 cubic yards of contaminated sediments were removed from the Christina River and the site's wetlands to protect aquatic life. To protect the wetlands and river from groundwater contamination, at one landfill DuPont installed a barrier wall and capture system that pumps the groundwater to the Wilmington Treatment Plant. At the other landfill, DuPont installed an in-ground water filter system that filters the groundwater before it enters the wetlands. Both of the site's landfills were also capped. DuPont created another 1.5 acres of wetlands near the south landfill by removing 20,000 cubic yards of contaminated soil. As a bonus to DuPont, the total cleanup costs came in at nearly \$13 million less than original estimates. These savings result from both the technical efficiency and the cooperation of the parties involved.

The effectiveness of cooperation is demonstrated by the cleanup of the DuPont site, and the resulting impact on the Christina River and its wetlands. By working together, EPA, DuPont, and the State of Delaware completed a cleanup effort that resulted in better benefits for the environment than originally anticipated. Moreover, the project came in below cost and ahead of schedule.

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*Restored wetlands at the DuPont-
Newport site.*